

WORKFORCE AND CAREER DEVELOPMENT :: Building Upon Key Michigan Strengths



"Improving Michigan's Competitive Advantage"

Executive Summary

A skilled worker shortage poses a significant long-term competitive threat to our state. While generating awareness continues to be the primary challenge in attracting workers to technical occupations, low birth rates and a lack of immigration of workers from other states over the past decade has compounded the problem. More potential workers must be attracted or recruited into technical careers and Michigan's workforce training system needs to respond more accurately and quickly to the needs of the business community in preparing individuals for these positions.

A number of new worker training initiatives have helped upgrade less skilled workers and have provided new pathways for individuals to learn about and move toward technically skilled careers. New efforts by Michigan Works! Agencies (MWAs), Michigan's Community Colleges, the Michigan Department of Career Development (MDCD), the Michigan Virtual University, Economic Development Job Training (EDJT) program modifications, and other private-sector initiatives have dramatically improved the training tools now available to thousands of underemployed workers and future workers. Michigan Technical Education CentersSM (M-TECs)SM also offer a unique and important new open-entry open-exit training resource for businesses and workers. Nonetheless, challenges remain and additional focus in several strategic areas is required.

Data published by Carnevale and Desrochers dramatically underscores this challenge. According to their national research, the percentage of workers (ages 30 to 59) with an associate's degree, certificate, or some level of college has more than doubled from 1973 to 1998. The demand for technically skilled workers with non-baccalaureate training has also risen by roughly 60 percent within the high-tech sector during this period. Michigan's economy is following this national trend.

The good news is that a vast majority of the emerging high-skilled jobs available in Michigan require a level of skill that can be obtained through a series of short-term, concentrated training programs. Occupational data from the MDCD shows that the vast majority of the emerging high-skilled jobs available in Michigan require a level of skill that can be obtained through a series of training courses that may or may not offer credentialing or certification.¹ Employers often have specific skill or knowledge needs which are satisfied by more focused education than that represented by a degree.

Michigan's business community has noted that continued improvements in the certification and credentialing of these programs are needed to ensure that its employees achieve the necessary skills to perform in the workplace. Certification and credentialing for both credit and non-credit programs are needed.

A recent study by Ferris State University also concluded that a lack of basic work skills is increasing, especially among workforce entrants. In addition to this lack of skills, there is a large perception gap between future workers' views on their employability skills (ability to work in teams, dependability, written and oral communication) and expectations of employers. Continued efforts to increase the awareness of young people (their parents) and underemployed workers about this shortfall are needed.

The same Ferris State University study concluded students are usually not making career decisions based on factual information such as job availability and salary levels. Most decisions are based on personal interests and perceived strengths and abilities. The study concluded that such assessments could lead the student to pursue unrealistic career goals versus selecting a career based on actual labor market data regarding jobs and earning power. Again, increased efforts to generate greater awareness about high-skilled good paying job opportunities are needed for both students and parents alike.



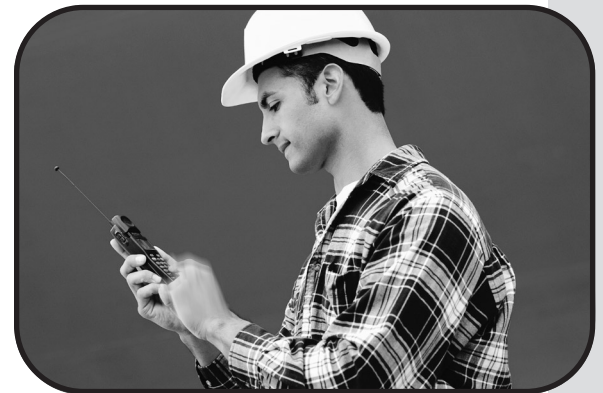
¹"Certification is associated with criterion-referenced performance assessment. It is occupationally focused and documents competency in discrete limited areas, validating the acquisition of skills and providing an assurance of readiness to perform in the workplace. Credentialing is a broader concept. A credential is also more generic and acknowledges the accumulation of certificates through the awarding of a document." *Toward New Models for Credentialing/Certification in Community Colleges*, July 2000



Recommendations

According to the National Alliance of Business, Michigan has one of the nation's best workforce development and training systems. To stay on top, there is an ongoing and underlying need to improve the connection of young people and incumbent workers with the state's growing technical career opportunities. To do so, the following actions are needed:

1. Develop a unified marketing strategy, directed towards students and their parents, that promotes a positive image of technical careers.
2. Review and better align financial incentives and policies, including shifting current resources, to ensure that scholarships, grants, and loans fully support the training needs of technical careers.
3. Build a skill based credentialing system to ensure quality and consistency to customers currently being served in the community college system.





Introduction

A basic long-term threat to Michigan's economic competitiveness is a shortage of skilled workers. Low birth rates and a lack of in-migration of workers from other states over the past decade heightens the importance of this issue. A lack of skilled workers will have serious economic development ramifications for Michigan's future economic growth, especially in high-tech sectors such as information technology, manufacturing, and life sciences. As a result, a key objective from the Michigan Economic Development Corporation's (MEDC) 2001 Operating Plan was to *ensure that the size and skills of Michigan's workforce meet the needs of its business customers*. One of the steps in reaching this goal is to *design and advocate for better systems to connect high school students to business and workers to technical education that will advance people's careers in the new economy*. In order to better understand the workforce needs of our new economy, the MEDC conducted a statewide survey of employers, economic developers, educators, MWAs, and other local partners. Eight regional forums were also held around the state to gather input. Finally, several relevant studies were also reviewed to develop our recommendations for action.



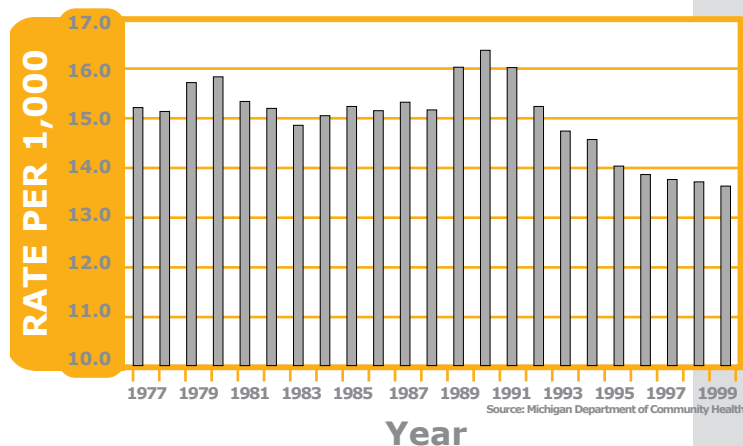


Background

Declining Population

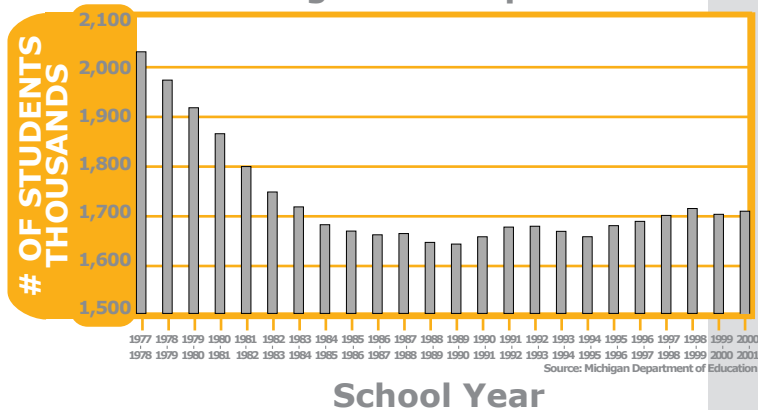
Michigan has experienced a decline in the birth rate and in the K-12 population. There has been 11 percent decline in the birth rate between 1977 and 1999.

Michigan Birth Rates



Along with the decline in the birth rate Michigan has experienced a decline in the K-12 student population. There are 16 percent less students in K-12 schools now in Michigan than in the late 1970s. In the 1977-78 school year, the fall pupil count was approximately 2 million students. The 2000-01 fall pupil count was 1.7 million students.

Michigan Fall Pupil Count



Declining Workforce

Data from the Bureau of Labor Statistics (BLS) shows that at least 58 million job openings will be available by 2010 in the United States. BLS estimates that 22 million new jobs will be created in the next nine years and that 36 million more openings may result from retirements and others who leave the labor force.² Yet, the labor force may fall more than 4.8 million workers short of meeting demand.

Using the BLS data, President Ed Potter of the Employment Policy Foundation is projecting that “there could be at least 12 million professional specialty jobs and more than 5 million managerial openings in the next decade. In these two leading occupational groups, 17 million positions will need to be filled by college or vocational program graduates. However, there may be a shortage of as many as 3.5 million workers with post-secondary education and skills to fill these positions.”

Michigan’s workforce is following the national trend. The number of younger individuals entering the workforce, ages 20 to 24, has been declining. There is also a significant decline in the age group of 25 to 34 of the existing workforce.

Michigan Population

| | 1990 | 2000 | %Change 1990–2000 |
|--------------------|-----------|-----------|----------------------|
| General Population | 9,295,297 | 9,938,444 | 6.92 |
| 15 to 19 years | 696,803 | 719,667 | 3.28 |
| 20 to 24 years | 705,318 | 643,639 | -8.74 |
| 25 to 34 years | 1,574,553 | 1,362,171 | -13.49 |
| 35 to 44 years | 1,406,149 | 1,598,373 | 13.67 |
| 45 to 54 years | 948,119 | 1,367,939 | 44.28 |
| 55 and over | 1,903,184 | 2,082,057 | 9.40 |

Source: U.S. Census Bureau

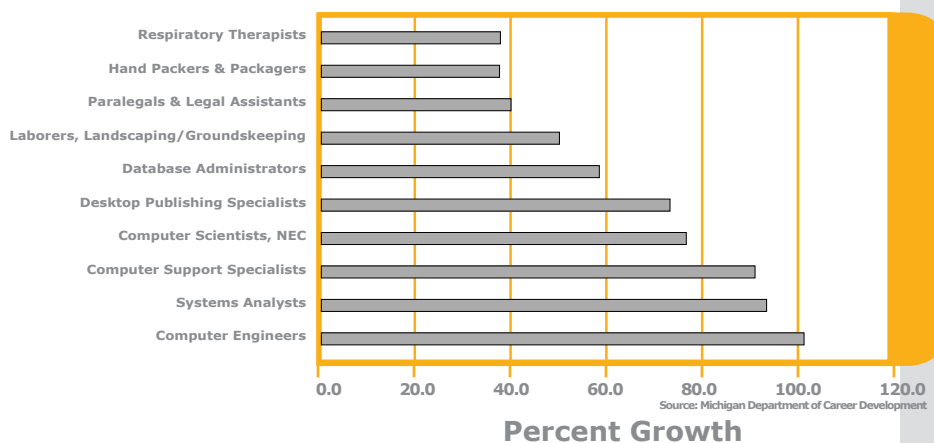
When coupled with the declining birth rate, declining K–12 population, and the increase in the number of individuals reaching retirement age, it is clear that Michigan is looking at a long-term worker shortage.

² EPF News Release, *New Data Shows Significant Job Growth By 2010, But Will There Be Enough Workers to Fill Them?*, December 5, 2001

Growth Occupations

The MDCD has identified the ten fastest growing occupations from 1998 to 2008. Six of these occupations are in the information technology sector. The projected growth rate for computer engineers is over 100 percent. Michigan's fastest growing occupations are primarily in the high-tech fields.

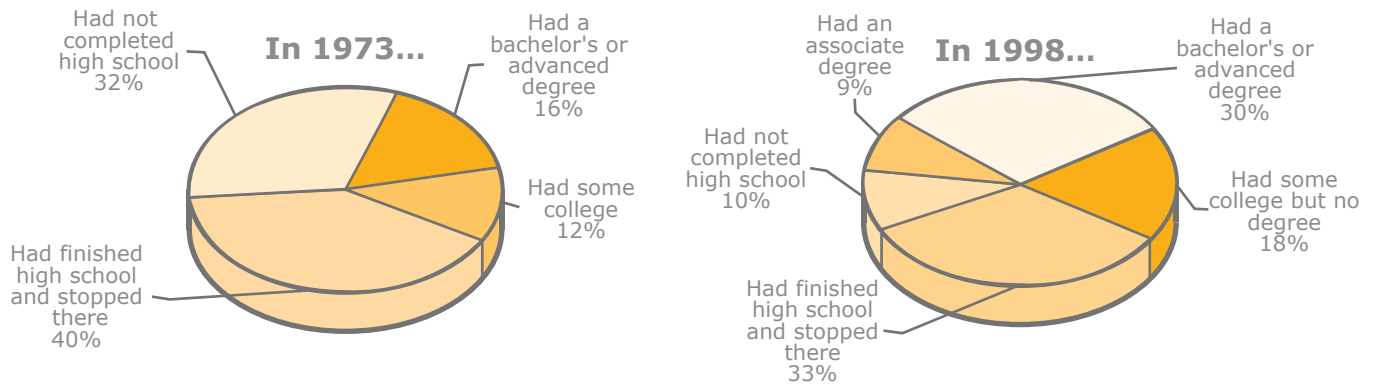
10 Fastest Growing Occupations 1998–2008



Need for Work Related Training

Anthony Carnevale and Donna Desrochers, from the Educational Testing Services, recently published a report regarding educational attainment. In 1998, 57 percent of prime-age workers (30 to 59) had attended some type of postsecondary institution. Since 1973 the percentage of workers with an associates degree, certificate, or some college has more than doubled, from 12 percent to 27 percent.³

Most Jobs Now Require Educational Attainment Beyond High School Percentage of prime-age workers in each educational category



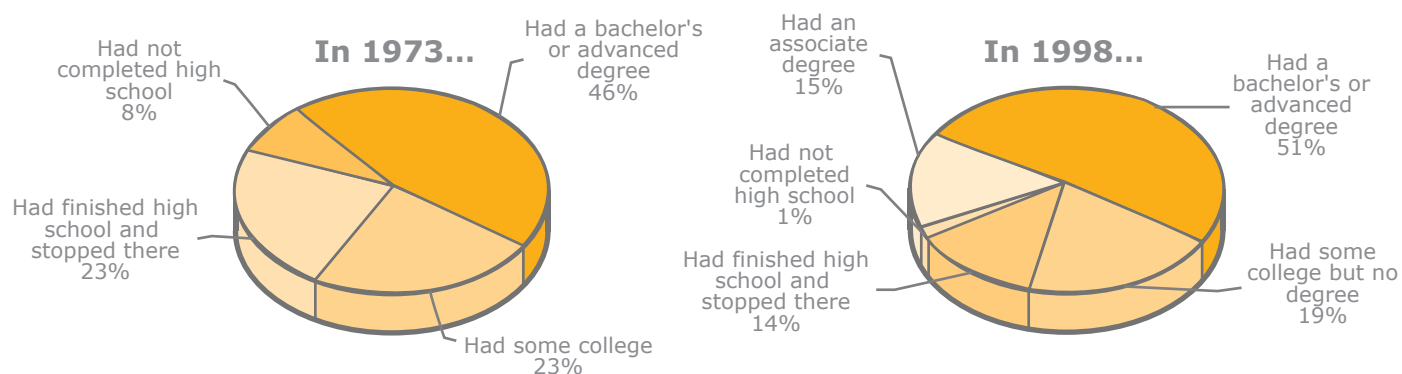
Source: Educational Testing Services, *Help Wanted...Credentials Required, Community College in the Knowledge Economy*.

³Educational Testing Services, *Help Wanted...Credentials Required, Community Colleges in the Knowledge Economy*, Anthony P. Carnevale and Donna M. Desrochers, 2001.

For the same period, 86 percent of prime-age high-tech workers had attended a postsecondary institution, up more than 60 percent in 1973.⁴

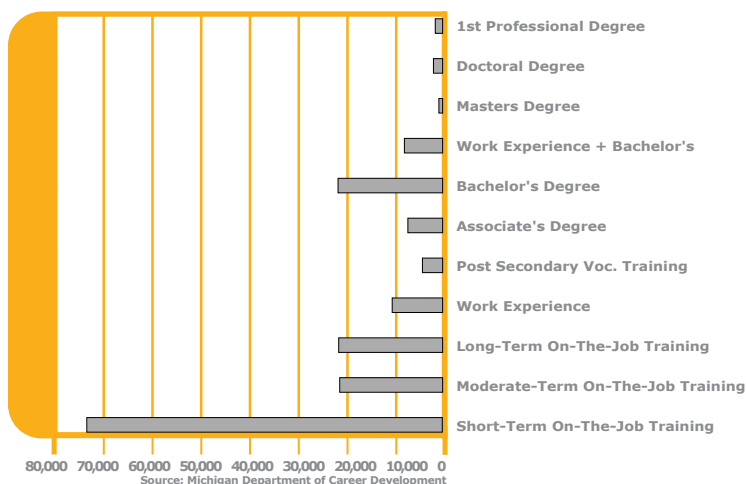
Within High-Tech Jobs, Educational Requirements Have Risen Substantially

Percentage of prime-age workers in each educational category



Source: Educational Testing Services, *Help Wanted...Credentials Required*, *Community College in the Knowledge Economy*.

1998–2008 Total Annual Openings



Michigan's total annual job openings for 1998 through 2008 by education level is reflective of this trend:

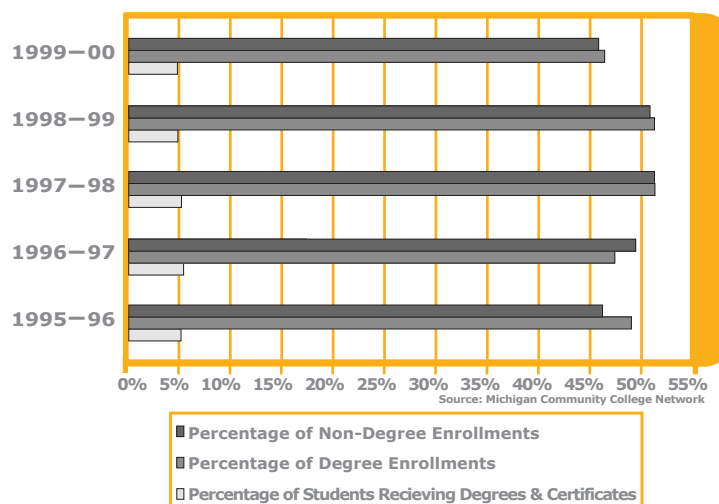
- A vast majority of the emerging high-wage, high-skilled jobs available in Michigan require a level of skills that can be obtained through community colleges.
- Projected job openings requiring moderate-term on-the-job-training is equivalent to the number of openings requiring a Bachelor's degree.
- A majority of the jobs that are high-skill, high-wage, and high-demand fall in the associate degree to the moderate on-the-job-training categories. Refer to Appendix A.
- In aggregate, employment that does not require a Bachelor's degree, and not short-term on-the-job-training, is increasing and approaching over 58,000 openings annually.

Note: Annual openings in the short-term on-the-job-training category represent occupations that are generally entry level positions such as retail salespersons, waiters and waitresses, food preparation workers, and counter and rental clerks, etc. The occupations in this category usually require minimal training. The high number of annual openings is reflective of the churning in these occupational areas as well as the number of positions in the workforce.

Students are receiving value from our community colleges in ways other than associate degrees. Michigan's Community Colleges collect data for both degree, and non-degree enrollment. For the past five years the percentage of non-degree enrollments has been within a few percentage points of degree enrollment, while degrees and certificates awarded have been around five percent. According to the *Sixth Michigan Community College Poll of Former Student Perspective, 2000*, more than one-half (52 percent) of former students of Michigan's Community Colleges believe it's very important for the colleges to provide non-credit courses and workshops for personal and/or professional development.

Michigan's Community Colleges are and should continue to play an important role in the training of our workforce.

Michigan Community Colleges



Research Results

Survey Information

Over 400 surveys were sent to privately owned companies and organizations, MWAs, K-12 and post-secondary educators and administrators during the first half of 2001. (Refer to Appendices B and C for detailed survey results.) The survey solicited comments about workforce and career development and had a 25 percent response rate.

Several themes were repeated throughout the survey responses:

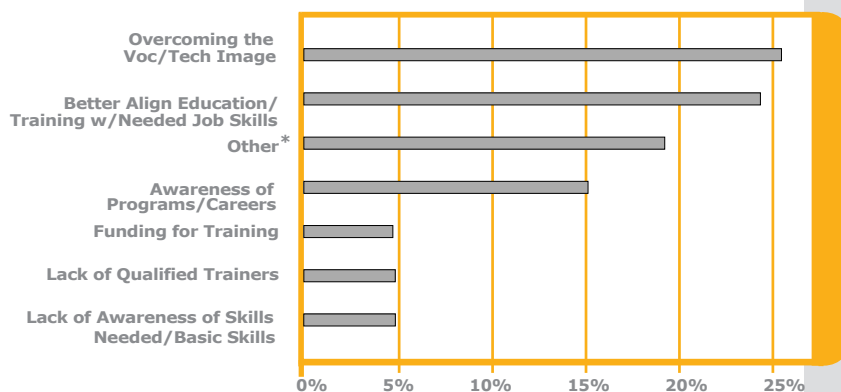
- An overall shortage of skilled workers and workers in general;
- The need to overcome the poor image of vocational/technical careers;
- Better alignment of education and training with the needed job skills;
- Training opportunities need to be strengthened; and
- Lack of basic (academic) skills.

Stakeholder Forums

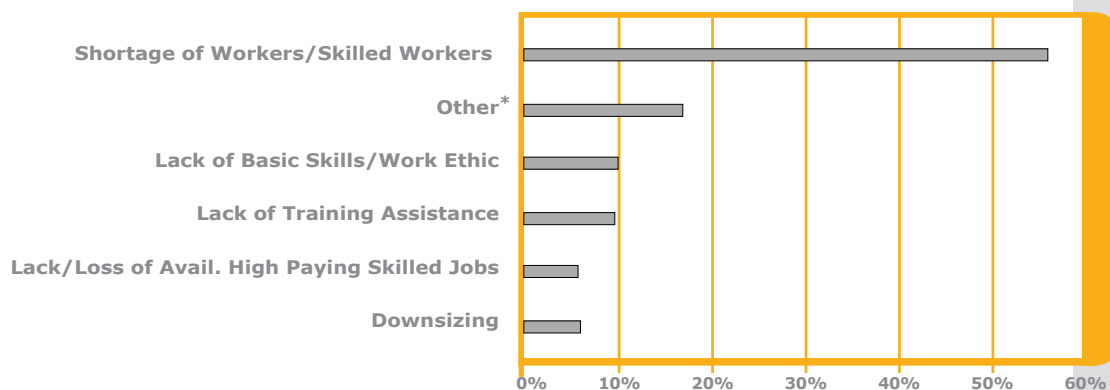
Eight forums were held throughout the state from April to August of 2001. A total of 316 business owners, economic and workforce developers, and local government officials attended the forums. Similar workforce concerns were raised during the forums including:

1. The shortage of workers;
2. The shortage of skilled workers; and
3. The poor image of technical careers.

What is Your Region's Biggest Challenge in Terms of Ensuring Students are Prepared for Careers Including Technical Careers?



What is the Current Number One Workforce Related Issue For Your Region?



*Represents a variety of single responses that did not relate to any of the other categories.

Published Studies

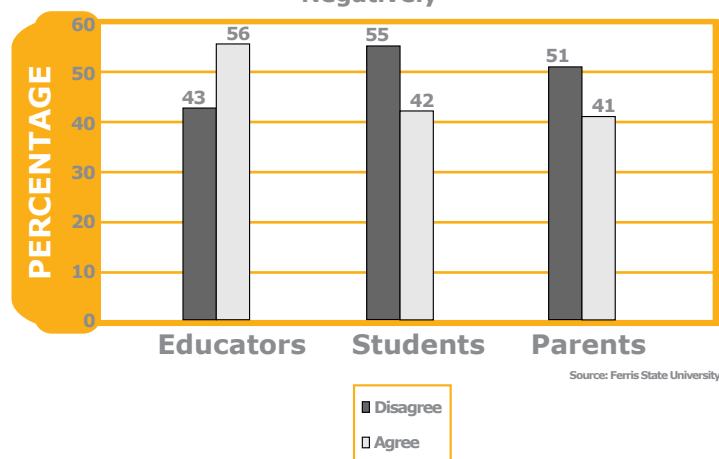
There have been several studies released recently addressing the educational and training needs of new economy. Ferris State University *Partnership for Career Decision-Making in Technologies and Health Sciences* conducted one of the most recent in-depth studies regarding how Michigan's students select career paths. The study examined how young people choose careers, what factors influence those decisions, and whether it is feasible to direct students toward high-demand careers. A series of four statewide surveys were conducted targeting Michigan young people, parents, and educators. A 400–450 sample size was used for each study.

Some of the conclusions of the study are:

Parents feel two-year degrees and training programs are beneficial for many children, but feel their children have greater potential. Three-quarters of the parents think their children need four-year degrees for career success.

Many parents and students, and most educators, feel vocational training programs carry with them a *sense of embarrassment*. Majorities in all three groups say the *best jobs* require four-year degrees.

Stigma Attached: Michigan Educators, Parents and Students Likely to Believe Training Programs are Viewed Negatively



Most young people make career decisions based on their personal interests, perceived strengths and abilities, not on the availability of jobs or level of salary. For example, 32 percent of young people surveyed said computer careers hold the greatest opportunity, but only six percent intend to pursue careers in computers.

Both parents and students rate themselves above average across eleven employability skills including the ability to work in teams, dependability, and written and oral communication.

One out of five teens that said computers offer the greatest career opportunity plan on a computer-related career, and not a single respondent who regards engineering as one of the top opportunities, plans to be an engineer.

The study recommended that:

1. The state and employers must launch a comprehensive image campaign to promote key career fields and high-demand jobs.
2. Higher education, employers, and the state must be willing to accept the public's perception of the value of a traditional four-year degree over other educational programs and must find ways to work with that perception.
3. Educators and policy-makers must work to improve career education and counseling efforts in the K–12 school system, with less emphasis on the traditional high-school *tracks*—general education, vocational-technical, or college-preparatory—and a stronger focus on career awareness and skills that apply across tracks and careers.
4. Educators and the state must foster relationships with leaders in business and industry to facilitate career-related professional development and educational opportunities.
5. The state must foster collaboration between interested companies, groups, institutions, and families regarding education and career-development issues to better serve all of education's stakeholders.⁵

⁵Partnership for Career Decision-Making in Technologies and Health Sciences, Ferris State University, 2000–2001

Community Colleges Meeting Business Needs

The National Council for Occupational Education (NCOE) and the National Council for Continuing Education and Training (NCCET) has held two national invitational colloquiums to discuss the impact of trends in certification and credentialing on community colleges. The first colloquium found that adults are more likely to use community colleges to obtain education that will result in long-term employment. Obtaining a traditional associates degree is not a necessity, at best, it may be a long-term goal. These adult students want education and training that will be validated quickly through either a job or advancement. At the same time, employers do not automatically assume a degree represents the skills needed to perform on the job. Employers often have specific skill or knowledge needs which are satisfied by more focused education than that represented by a degree. Degrees are far less important than specific knowledge of products and processes.

Surveys by the NCOE/NCCET indicate that community colleges are considered an important training source, but it appears increasingly that companies are turning to other competitors (private training companies or community based organizations) or developing their own training divisions to meet their needs.⁶ A company's competitive advantage may depend on how quickly and effectively it can train its workforce to meet customer demands. Although large corporations may have the ability to direct resources to the development of a training division, it is often done out of necessity rather than economics. For smaller companies, with more limited resources, training must be provided from outside the organization. The demand for training is high; the challenge facing Michigan companies is finding sources to provide the level and quality of training they need, in the timeframe to meet their customer's demands.



The training courses offered by community colleges should be comprehensive and provide some level of certification to indicate that the individual has the skills to perform in the workplace. Participants of the second colloquium reached agreement that to be effective, certification and/or credentialing processes or systems should have the following characteristics:

- Portable
- Modular
- Based on competencies and outcomes
- Recognized by professional and industry associations
- Contain mechanisms for constant updating
- Have mechanisms to acknowledge and accommodate prior learning
- Avoid a *guild* mentality where narrow vested industry interests dominate
- Recognize the separate functions of instruction and assessment⁷

In order to ensure the quality and consistency that customer's desire, Michigan's community colleges should build a skilled based credentialing system.

Retaining Michigan's Graduates

The MEDC and the President's Council, State Universities of Michigan, conducted a Graduate Migration Study that involved surveying graduates of Michigan's fourteen universities in the fields of Engineering, Life Sciences, Information Technology and Business. Of the 800 graduates surveyed, 79 percent now live and work in Michigan. Of those that choose to live out-of-state, it was primarily due to better job opportunities and nearly half were open to relocating back to the state.⁸ Michigan is doing a good job of retaining university graduates, yet our employers continue to report shortages of skilled workers, who can be trained through on-the-job training, post secondary vocational training, and associate degrees.

⁶Toward New Models for Credentialing/Certification in Community Colleges, September 2000

⁷White Paper on Credentialing, Certification and Community Colleges, June 2001

⁸Michigan Economic Development Corporation Graduate Migration Survey, Glengariff Group, Inc.

Incumbent Worker Training

In 1999, the State of Michigan's Economic Development Job Training (EDJT) program commissioned Plante & Moran, LLP to conduct a benchmarking and policy analysis study. The objectives of the study were to:

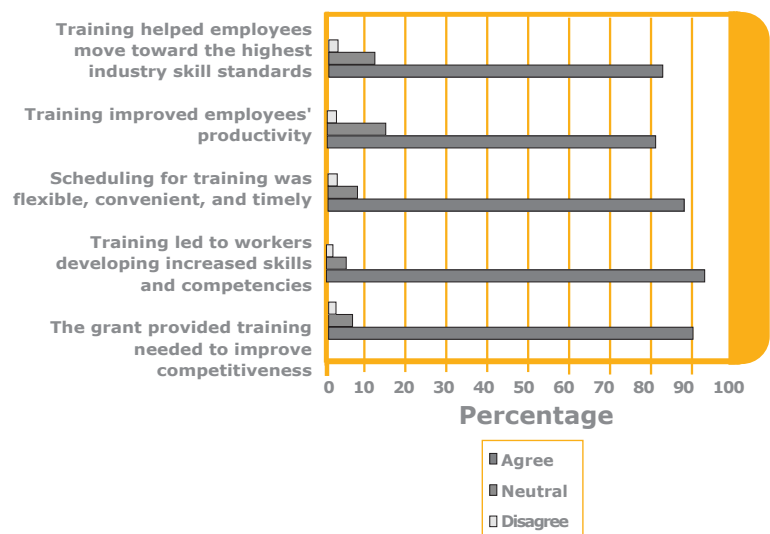
- Compare Michigan's EDJT program with programs in other states;
- Compare Michigan's EDJT new site location incentive services with similar workforce development incentives in other states; and
- Recommend future customer friendly policies for improving the EDJT program.

Michigan employers interviewed indicated that training is a tactical strategy to achieve their business plan objectives. The training that is often required is focused on technical and specialty skills. A company's customer base needs often dictate the type of training that is necessary. Thus, training programs need to be flexible enough to change quickly to the needs of their customers.⁹ The pace at which technology changes and meeting customer demands makes workforce training a vital component of operating a business in the new economy.

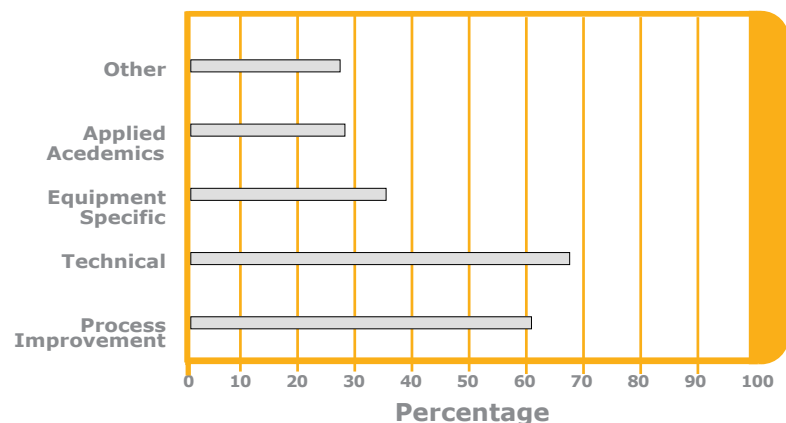
In the same study, surveys indicated that other workforce development programs available through the state were not well known throughout Michigan's business community. Plante & Moran recommend the development of marketing plans for these programs to gain more exposure in the business community.

A number of the Plante & Moran recommendations were implemented and a follow-up satisfaction study was conducted in early 2001. The survey found that employers were very satisfied with the training they received through the program and believed the training not only increased the skills and competencies of their workers, but also their productivity. The types of training received through the EDJT program were primarily in the areas of technical and specialty skills.

EDJT—Satisfaction with Training



Type of Training Received



⁹Benchmarking and Policy Analysis, October 1999, Plante & Moran, LLP

Michigan Programs

Several innovative programs have been developed to address some of the workforce development issues raised in this paper. The Career Pathways program within the MDCC designates six broad groupings of careers that schools may integrate into their curriculum: arts and communications; engineering; industrial technology and construction; health sciences; human services; natural resources and agriculture; and business, marketing and management. Each pathway includes examples of specific careers; level of education required; relevant courses in school; fast-growing occupations; and personal characteristics related to success. This information helps students see how school subjects relate to a specific career. In June 2001, the Berrien County Intermediate School District issued a report on their Career Pathways that concludes the school district has achieved measurable success by implementing comprehensive system wide Career Pathways curricula. The school district has experienced a 521 percent increase in the number of students participating in Career Technical Education. In addition, there has been a 7.7 percent increase in the number of high school graduates attending post-secondary institutions.

The MDCC has established 42 WorkKeys® Centers throughout the state. WorkKeys is a skill assessment system used nationwide. There are eight WorkKeys assessments: Applied Mathematics, Applied Technology, Listening, Locating Information, Observation, Reading for Information, Teamwork and Writing. WorkKeys is utilized by employers to assess worker skills; provides a means for students and workers to document and advance their employability skills; and can be used by educators to tailor instructional programs to help students acquire the skills employers need.

The Michigan Council Technical Excellence recently established the Michigan Career Readiness Certificate (MCRC) for students and adult who attain required skill levels on four WorkKeys assessments, math, reading, locating information, and writing. The MCRC is a portable credential that tells potential employers that an individual has achieved acceptable levels in these foundation skills necessary for success in the workplace.

The MDCC granted over \$1.2 million to community colleges and other institutions for the development of competency-based curricula. The grants created an incentive for business and education partnerships to address local training needs.



As an example, Oakland Community College used their grant to design a certificate program for PC User Support and Operating System Technicians.

Michigan Technical Education CentersSM (M-TECs)SM, a new training resource operated by community colleges, provides on-demand training, based on industry standards, in state of the art facilities. There are currently 15 of the 18 centers open. In 2001, the centers served over 500 employers and 16,000 trainees.

MDCC has utilized a variety of marketing avenues to increase the public's awareness of Michigan's Career Development System. A study commissioned by the department shows a 27 percent increase in awareness from September 2000 to September 2001. The marketing strategy includes the use of billboards, website, toll-free hotline, television and radio advertisement and public service announcements, and more than 100 press releases.

Conclusions

There is a shortage of skilled workers in Michigan. This has been an issue since the early 1990s. Numerous studies have concluded that a significant link exists between the quality of a nation's workforce and its economic growth. U.S. businesses certainly believe that a prepared workforce is necessary to their own success and survival.¹⁰

Michigan has and is developing innovative workforce development programs. There are still hurdles to overcome to meet the workforce demands of our new economy:

The stigma associated with vocational training programs and career decisions being based on perception versus actual labor market data regarding jobs and earning power is a major impediment in preparing Michigan's entering workforce for its high-demand jobs.

Education and training must be better aligned with the needed job skills. Students of all ages need to factor in availability of jobs, actual labor market data regarding jobs, and earning power when making career decisions. There is a large gap between students perceived level of employability skills (ability to work in teams, dependability, written and oral communication) and that of employers.

The community college system recognizes the need to coordinate resources and to continue to respond faster to the needs of the business community. Michigan's business community requires certification and credentialing courses that demonstrate that the employee can actually perform job duties.



¹⁰ *The Path to Prosperity: Training Skilled Workers for the Jobs of the 21st Century*, 1999



Recommendations

There are more sophisticated tools than ever to connect young people and incumbent workers with the growing technical careers. However, to improve one of the nation's best workforce development systems the following actions are recommended:

1. Develop a unified marketing strategy, directed towards students and their parents.

The MEDC should gather stakeholders, including the MWAs, Michigan Community College Association, and the MDCCD, together to develop a strategic plan for improving the coordination and marketing of technical careers being created in the *new economy*. The plan needs to address:

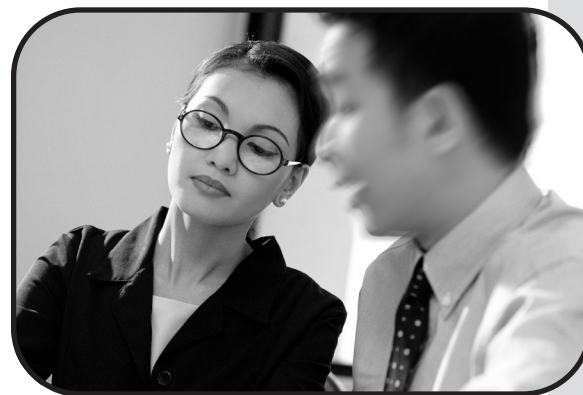
- The need for more technical education at both the community college and university levels;
- New ways to describe *technical education* given the negative perception of vocational training programs;
- More creative thinking about how to pursue a technically oriented career (2+2 programs as an example);
- Students making career choices on their perceptions rather than actual labor market conditions;
- The perception of parents and students that the student possess a high level of employability skills; and
- Ways to work with the perception that the value of a traditional four-year general educational degree is greater than technical careers.

2. Review and better align financial incentives and policies, including shifting current resources, to ensure that scholarships, grants, and loans fully support the training needs of technical careers.

The MEDC should commission a study that reviews the state's current financial incentives and policies that support technical careers and make recommendations to ensure that all available resources support the training needs of technical careers.

3. Build a skill based credentialing system to ensure quality and consistency to customers currently being served in the community college system.

The Michigan Community College Association should develop, in coordination with the MDCCD and MEDC, a model for statewide recognized credentialing system based on the input from private and public sector representatives that address the needs of its customers (employers and students).



The Michigan Economic Development Corporation acknowledges and thanks C.J. Shroll, Michigan Community Colleges Association and John Williams, Michigan Department of Career Development for their time and input on this project. Other contributors to this report include Diana Carpenter, Cindy Ballard, Sue Brenton, Robert Filka and Carole Sorenson.

Appendix A :: Educational Requirements For Michigan's Growth Occupations



Growth Occupations Requiring An Associate Degree

| | 1996 | 2006 | Change | % Change |
|----------------------------------|--------|--------|--------|----------|
| Registered Nurses | 71,011 | 80,235 | 9,224 | 13.0 |
| Health Prof/Paraprof/Techns, NEC | 19,479 | 23,831 | 4,352 | 22.3 |
| Dental Hygienists | 6,769 | 8,857 | 2,088 | 30.8 |
| Teacher Aides, Paraprof | 22,164 | 23,540 | 1,376 | 6.2 |
| Respiratory Therapists | 2,955 | 4,282 | 1,327 | 44.9 |
| Paralegals | 2,393 | 3,538 | 1,145 | 47.8 |
| Electrical and Electronic Techns | 5,432 | 6,515 | 1,083 | 19.9 |
| Medical Records Technicians | 2,594 | 3,663 | 1,069 | 41.2 |
| Engin Technician/Technology, NEC | 13,370 | 14,303 | 933 | 7.0 |
| Mechanical Engineering Techncs | 3,850 | 4,446 | 596 | 15.5 |
| Science Technicians, NEC | 3,812 | 4,225 | 413 | 10.8 |
| Med/Clinical Lab Technicians | 4,142 | 4,537 | 395 | 9.5 |
| Radiologic Technicians | 1,189 | 1,542 | 353 | 29.7 |
| Radiologic Technologists | 967 | 1,309 | 342 | 35.4 |
| Psychiatric Technicians | 3,776 | 4,103 | 327 | 8.7 |
| Cardiology Technologists | 916 | 1,240 | 324 | 35.4 |
| Radiologic Techs, Hospitals | 3,659 | 3,945 | 286 | 7.8 |
| Civil Engineering Technicians | 1,326 | 1,597 | 271 | 20.4 |
| Chemical Techncs, Exc Health | 2,999 | 3,193 | 194 | 6.5 |
| Legal Assistants, NEC | 629 | 766 | 137 | 21.8 |

Source: Michigan Department of Career Development

Growth Occupations Requiring Post-Secondary Vocational Training

| | 1996 | 2006 | Change | % Change |
|----------------------------------|---------|---------|--------|----------|
| Automotive Mechanics | 28,155 | 30,036 | 1,881 | 6.7 |
| Emergency Medical Technicians | 4,860 | 6,548 | 1,688 | 34.7 |
| Licensed Practical Nurses | 21,038 | 22,691 | 1,653 | 7.9 |
| Drafters | 24,658 | 25,909 | 1,251 | 5.1 |
| Data Processing Eqp Repairs | 2,965 | 4,099 | 1,134 | 38.2 |
| Medical Secretaries | 9,072 | 10,189 | 1,117 | 12.3 |
| Welders and Cutters | 14,877 | 15,967 | 1,090 | 7.3 |
| Data Entry Keyers, Exc Composing | 11,450 | 12,510 | 1,060 | 9.3 |
| Electronic Repairs, Commerc/Ind | 2,505 | 3,173 | 668 | 26.7 |
| Travel Agents | 4,602 | 4,983 | 381 | 8.3 |
| Aircraft Mechanics | 2,704 | 2,998 | 294 | 10.9 |
| Elect Motor, Transform Repair | 906 | 1,160 | 254 | 28.0 |
| Computer Programmer Aides | 2,910 | 3,146 | 236 | 8.1 |
| Manicurist | 693 | 917 | 224 | 32.3 |
| Secretaries, Ex Legal or Med | 100,446 | 100,663 | 217 | 0.2 |
| Surveying/Mapping Technics | 1,777 | 1,927 | 150 | 8.4 |
| Surgical Technologists | 1,628 | 1,768 | 140 | 8.6 |
| Broadcast Technicians | 1,076 | 1,155 | 79 | 7.3 |
| Radiation Therapists | 722 | 779 | 57 | 7.9 |

Source: Michigan Department of Career Development

Growth Occupations Requiring Long-Term On-The-Job Training

| | 1996 | 2006 | Change | % Change |
|------------------------------------|--------|--------|--------|----------|
| Cooks, Restaurant | 22,211 | 26,464 | 4,253 | 19.1 |
| Corrections Officers | 14,230 | 17,011 | 2,781 | 19.5 |
| Electricians | 24,971 | 27,467 | 2,496 | 10.0 |
| Police Patrol Officers | 16,375 | 18,614 | 2,239 | 13.7 |
| Heat, A/C, Refrig Mechanics | 7,177 | 9,057 | 1,880 | 26.2 |
| Flight Attendants | 5,621 | 7,153 | 1,532 | 27.3 |
| Plumbers/Pipefitters/Steamfitters | 13,758 | 15,014 | 1,256 | 9.1 |
| Automotive Body Repairers | 9,433 | 10,574 | 1,141 | 12.1 |
| Carpenters | 30,387 | 31,355 | 968 | 3.2 |
| Cooks, Institutions/Cafe | 11,895 | 12,722 | 827 | 7.0 |
| Machinists | 21,354 | 22,150 | 796 | 3.7 |
| Electronic Pagination Syst Workers | 970 | 1,761 | 791 | 81.5 |
| Elect Powerline Intirs/Repairs | 5,191 | 5,946 | 755 | 14.5 |
| Brick Masons | 4,876 | 5,571 | 695 | 14.3 |
| Bus, Truck, Diesel Eng Mechs | 8,610 | 9,222 | 612 | 7.1 |
| Electric/Electro Equip Mechs, NEC | 1,970 | 2,557 | 587 | 29.8 |
| Telephone/Cable TV Instllr/Repairs | 4,825 | 5,392 | 567 | 11.8 |
| Precision Workers, EC | 3,117 | 3,608 | 491 | 15.8 |
| Concrete & Terrazzo Finishers | 2,913 | 3,394 | 481 | 16.5 |

Source: Michigan Department of Career Development

Growth Occupations Requiring Moderate-Term On-The-Job Training

| | 1996 | 2006 | Change | %Change |
|-----------------------------------|--------|--------|--------|---------|
| Sales Representatives, NEC | 38,862 | 43,485 | 4,623 | 11.9 |
| Medical Assistants | 9,760 | 14,099 | 4,339 | 44.5 |
| Numerical Control Mach Operators | 7,966 | 10,703 | 2,737 | 34.4 |
| Metal/Plast Setters/Oprs, NEC | 11,066 | 13,719 | 2,653 | 24.0 |
| Packaging/Filling Mach Operators | 9,814 | 12,326 | 2,512 | 25.5 |
| Human Services Workers | 7,868 | 10,358 | 2,490 | 31.6 |
| Instructors & Coaches, Sports | 7,031 | 9,131 | 2,100 | 29.9 |
| Combin Mach Tool Setters | 7,338 | 9,234 | 1,896 | 25.8 |
| Plast/Mold Mach Oprs/Tndrs | 10,759 | 12,519 | 1,760 | 16.4 |
| Sales Reps, Science | 15,530 | 17,286 | 1,756 | 11.3 |
| Salespersons, Parts | 10,795 | 12,508 | 1,713 | 15.9 |
| Sales & Related Workers | 11,639 | 13,246 | 1,607 | 13.8 |
| Dental Assistants | 6,957 | 8,500 | 1,543 | 22.2 |
| Sales Agents, Business | 7,577 | 8,886 | 1,309 | 17.3 |
| Metal/Plast Oprs/Tndrs, NEC | 5,556 | 6,808 | 1,252 | 22.5 |
| Telemarketers, Door-To-Door Sales | 14,357 | 15,603 | 1,246 | 8.7 |
| Painters & Paperhangers | 10,600 | 11,822 | 1,222 | 11.5 |
| Phys, Correct Therapy Assts | 2,329 | 3,487 | 1,158 | 49.7 |
| Combin Mach Tool Oprs/Tndrs | 3,984 | 4,932 | 948 | 23.8 |
| Paving/Surfacing/Tamping Oprs | 1,946 | 2,849 | 903 | 46.4 |

Source: Michigan Department of Career Development

Growth Occupations Requiring Short-Term On-The-Job Training

| | 1996 | 2006 | Change | %Change |
|---------------------------------|---------|---------|--------|---------|
| Salespersons, Retail | 137,654 | 160,231 | 22,577 | 16.4 |
| Cashiers | 119,089 | 139,440 | 20,351 | 17.1 |
| Helpers & Laborers, NEC | 69,936 | 83,445 | 13,509 | 19.3 |
| Food Preparation Workers | 53,931 | 65,536 | 11,605 | 21.5 |
| Waiters & Waitresses | 79,472 | 89,702 | 10,230 | 12.9 |
| Home Health Aides | 22,971 | 33,114 | 10,143 | 44.2 |
| Reception/Information Clerks | 38,730 | 47,996 | 9,266 | 23.9 |
| Hand Packers & Packagers | 38,664 | 47,627 | 8,963 | 23.2 |
| General Office Clerks | 106,175 | 113,954 | 7,779 | 7.3 |
| Maintenance Repairers, Gen Util | 51,062 | 58,218 | 7,156 | 14.0 |
| Comb Food Prep/Serv Workers | 45,794 | 52,600 | 6,806 | 14.9 |
| Truck Drivers, Light | 34,192 | 40,513 | 6,321 | 18.5 |
| Stock Clerks: Stockrm/Warehouse | 29,174 | 34,811 | 5,637 | 19.3 |
| Nursing Aides & Orderlies | 44,026 | 49,170 | 5,144 | 11.7 |
| Adjustment Clerks | 11,100 | 16,193 | 5,093 | 45.9 |
| Guards | 24,799 | 29,075 | 4,276 | 17.2 |
| Truck Drivers, Heavy | 46,499 | 50,667 | 4,168 | 9.0 |
| Traffic/Shipping/Recvng Clks | 33,545 | 37,521 | 3,976 | 11.9 |
| Cooks, Fast Food | 15,654 | 19,603 | 3,949 | 25.2 |
| Counter & Rental Clerks | 16,410 | 19,831 | 3,421 | 20.8 |

Source: Michigan Department of Career Development

Appendix B :: Upper Penninsula Workforce/Career Development Survey Results



Introduction

In anticipation of two regional workforce development roundtable discussions to be held in Michigan's Upper Peninsula on April 5 and 6, 2001, questionnaires were sent to those invited to participate to gauge current workforce development concerns. In the last year, Workforce Development Boards in each region have gone through extensive strategic planning; this questionnaire was not intended to duplicate that process, but rather to facilitate the discussion at the roundtables.

General Themes

It is apparent that the respondents believe that workforce development is critical to the Upper Peninsula.¹¹ Several themes were repeated throughout the survey responses:

- Training opportunities need to be strengthened
More training is needed, starting earlier in schools and utilizing better equipment and qualified trainers.
- Awareness of required job skills must be increased
Starting early, students should understand what skills are needed for employment in today's economy.
- Education and industry should improve communications
Better align education and training with the needed job skills.



Brief Narrative

The respondents were asked to identify the current top workforce-related issue in the region, and responses were varied: 41 percent cited the lack or loss of high paying, skilled jobs, and 35 percent cited the lack of skilled workers. Most indicated that their top issue had not changed in the last year.¹²

When asked whether businesses were familiar with the workforce/career development programs in the region, a large majority of the responses fell within the range of not familiar to somewhat familiar. Forty-seven percent said that better marketing or communications about these programs would increase the awareness and use of programs. While respondents believe that businesses were not very familiar with the workforce development programs in their area, 58 percent of those responding had seen the MDCD marketing campaign and many expressed positive comments.

Respondents have different opinions about how educational providers rate in providing students an education that prepares them for work in the region. Using a rating scale of one to ten, with one being very low and ten being high, 23 percent of the respondents gave high schools a high rating (7–8 on a scale of 1–10; however 52 percent did not comment at all about high schools). Thirty-five percent of respondents rated adult education programs average (4–5 on a scale of 1–10—35 percent did not comment on adult ed). Respondents rated community colleges high (64 percent gave ratings of 7–8). Four-year colleges were rated as high (53 percent gave ratings of 7–8).

The region's biggest challenges in terms of ensuring that students are prepared for careers, including technical careers, were identified as: awareness of needed job skills and matching education and training to those needs; the availability of updated equipment and qualified instructors to train the workforce appropriately; and overcoming the *voc tech image*.

Many ideas were expressed regarding enhancing the career development system to help those who need skills upgrades. Ideas ranged from improving the quality of the equipment used in training to encouraging greater cooperation between industry and education/training programs.

¹¹Of the 52 questionnaires sent, 17 (or 32 percent) were returned. See Upper Peninsula survey questions and tallied responses.

¹²See page 33.

Numerous proposals were offered to strengthen the linkages between economic development and workforce development. Suggestions included having MEDC account representatives provide more formalized feedback to the local Workforce Development Boards, implementing less centralized procedures and more flexibility per each region's needs, and educating the workforce.

It is clear that retaining and building a skilled workforce is important to residents of the Upper Peninsula. Proposals to keep Michigan strong in this area centered on improving and increasing education and training; and increasing awareness of the skills needed for employment in today's economy as well as increasing awareness of the kinds of jobs available.

MDCD Environmental Scan

As mentioned previously, Workforce Development Boards in each region have gone through extensive strategic planning. Not surprisingly, the environmental scan conducted in the Upper Peninsula by the Workforce Development Board echoes some of the issues that were brought to the forefront in our survey. The Michigan Works! goals include increasing education/business partnerships and increasing career development awareness, beginning in schools.

Summary

Respondents of the survey believe that workforce training is critical and must be enhanced by continuing to encourage it, starting in high school and beyond. In order to provide adequate training, equipment must be up to date and the trainers must remain proficient in their skills. Awareness of the skills needed for today's jobs needs to be increased, and industry and education need to improve communication about skills that are required to more fully match available jobs with skilled employees.

Upper Peninsula :: Workforce/Career Development Survey

1. What is the current #1 workforce related issue for your region? Has it changed in the last year?
2. On a scale of 1–10 (1 being not familiar and 10 being very familiar), how familiar are businesses in your region with available workforce/career development programs?

How can the awareness and use of these programs be increased?

Have you seen the MDCD marketing campaign? Do you have any feedback/comments?
3. Again on a scale of 1–10 (1 being not well and 10 being very well), how well do educational providers do in providing students an education that prepares them for work in your region?

High Schools?
Adult Education?
Community Colleges?
Four-year Colleges/Universities?
4. What is your region's biggest challenge in terms of ensuring students are prepared for careers including technical careers?
5. How can the career development system be enhanced to help those who need skills upgrades – the underemployed incumbent workers in your region? The unskilled?
6. Michigan has nationally recognized workforce and economic development systems; how can the linkages between the systems be enhanced to maintain our *best in class* reputation?
7. What ideas do you have as to how we can better ensure that Michigan remains competitive with other states in terms of retaining and building a skilled workforce?

Name: _____
(Optional)

Upper Peninsula :: Workforce/Career Development Survey Data

1. What is the current #1 workforce related issue for your region?

Lack/loss of available high paying/skilled jobs (5)

Shortage of skilled workers (5)

Downsizing (2)

Workforce preparation (1)

Greater awareness of career opportunities (1)

Lack of basic skills in high school students (1)

Motivation (1)

Availability of eligible/trainable employees (1)

Has it changed in the last year?

No (6)

Yes (4)

NA (7)

2. On a scale of 1–10 (1 being not familiar and 10 being very familiar), how familiar are businesses in your region with available workforce/career development programs?

2 (2)

3 (2)

4 (3)

5 (6)

6 (1)

7 (2)

8 (1)

How can the awareness and use of these programs be increased?

Better marketing/communications (8)

Personal contact (3)

Increase quality of the programs (1)

Better funding sources for training grants (1)

More industry involvement in career partnerships (1)

It is improving (1)

Focus on employer needs and national job demand (1)

Have you seen the MDCCD marketing campaign?

Yes (10)

No (3)

NA (4)

Do you have any feedback/comments?

Television spots good (1)

Good/great (3)

Step in the right direction (2)

Compelling (1)

3. Again on a scale of 1–10 (1 being not well and 10 being very well), how well do educational providers do in providing students an education that prepares them for work in your region?

| High Schools | Adult Education | Community Colleges | Colleges/ Four-year Universities |
|--------------|-----------------|--------------------|-------------------------------------|
| 3 (1) | 1 (2) | 5 (2) | 5 (2) |
| 4 (1) | 3 (1) | 6 (2) | 6 (2) |
| 5 (1) | 4 (2) | 7 (4) | 7 (5) |
| 6 (1) | 5 (4) | 8 (7) | 8 (4) |
| 7 (1) | 6 (1) | 9 (2) | 9 (2) |
| 8 (3) | 8 (1) | | NA (2) |
| NA (9) | NA (6) | | |

4. What is your region's biggest challenge in terms of ensuring students are prepared for careers including technical careers?

Matching education and training with needed job skills (4)
 Lack of qualified/certified trainers (3)
 Lack of state of the art equipment and software training (2)
 Overcoming the voc tech image (2)
 Proximity to training sites (1)
 Lack of cooperation between industry and high schools (1)
 Lack of awareness of skills needed in high school students (1)
 Communication (1)
 Quality of primary and secondary elementary programs (1)
 Motivation (1)

5. How can the career development system be enhanced to help those who need skills upgrades—the underemployed incumbent workers in your region? The unskilled?

Match employment needs with training (2)
 Increased funding to do training (2)
 Need up to date, quality equipment to train with (1)
 Intensive, short courses (1)
 Industry should utilize co-op programs for high schools (1)
 Work more closely with M-TECsSM and ISD's (1)
 Fund a complete center to be used by the community colleges, university and career centers (1)
 The underemployed need a rapid system to upgrade skills for IT jobs; the unskilled need a GED and tech training (1)
 Utilize paid internship programs with required commitment to stay in job (1)
 Provide incentives to business for training (1)
 Encourage entrepreneurship in career development programs (1)
 NA (4)

6. Michigan has nationally recognized workforce and economic development systems; how can the linkages between the systems be enhanced to maintain our *best in class* reputation?
 - Feedback from MEDC account reps to local Work Development Boards (2)
 - Less centralized procedures and more flexibility per region's needs (2)
 - Educating the workforce (2)
 - Better coordination between DCD and MEDC (appears to be non-existent now) (1)
 - Do a better job of matching geographically and worker profiles (1)
 - Further develop current programs (1)
 - Utilize coordination director to direct all system's activities (1)
 - Focus (1)
 - NA (6)

7. What ideas do you have as to how we can better ensure that Michigan remains competitive with other states in terms of retaining and building a skilled workforce?
 - Workforce Boards need to take an active role in incumbent worker training (1)
 - Fully implement career pathways (1)
 - Utilize China and India as models to encourage technical careers (1)
 - Revamp Voc Tech to Co-op programs for high schoolers (1)
 - Enhance Training programs; keep salaries competitive (1)
 - Increase partnership between regions of the state to attract workers to other regions where there are jobs (1)
 - Clearly communicate to youth and employers expectations and requirements as well as career opportunities in local areas (1)
 - Tax incentives for employers (1)
 - Promote career development (1)
 - More emphasis on advertising job needs and required skills (1)
 - Increase quality of education and family life (1)
 - Upgrade equipment and provide continuous training (1)
 - Survey businesses regarding toughest job requirements at entry level (1)
 - NA (4)

Appendix C :: Lower Peninsula Workforce/Career Development Survey Results



As with the Michigan Upper Peninsula regional workforce development roundtable discussion, surveys were sent to the Lower Peninsula invitees to gauge current workforce development concerns. This questionnaire was not intended to duplicate that strategic planning process the Workforce Development Boards have gone through in the last year, but rather to facilitate the discussion at the forums.

General Themes

Several themes were repeated throughout the survey responses:

- Shortage of skilled workers and workers in general
More training is needed.
- Need to overcome the image of vocational/technical careers
Need to start educating students and parents early about the attributes of a career that does not require a 4 year degree.
- Education and industry should improve communications
Better align education and training with the needed job skills.
- Lack of basic skills (academic) and work ethic
Greater emphasis on essential and employability skills in K–12 curriculum.

Brief Narrative

We received a total of 81 surveys. Affiliation identification was as follows:

Private Sector Company – 10
Private Sector Other (Chambers, etc.) – 25
Michigan Works! – 10
K–12 Education – 2
Post-Secondary Education – 23
No Answer – 11

Two analyses were conducted, one included all surveys received and the second was for only private sector respondents. See page 41 for overall results and page 45 for private sector results.

The respondents were asked to identify the *current top workforce-related issue* in their region. For both analyses, shortage of skilled worker and workers in general were their top issue. Lack of basic skills/work ethic was the next pressing issue. Most indicated that their top issue had not changed in the last year.

When asked whether businesses were *familiar with the career/workforce development programs* in the region, the majority of the responses fell within the range of somewhat familiar. Both groups felt that:

- better marketing/communication,
- coordination between business, government, education, chambers of commerce, etc.
- and personal contact

would increase the awareness and use of the programs.

The respondents for both groups felt that Michigan's *educational providers were average to slightly above average* (using a scale of one to ten, with one being very low and ten being high) in preparing students for work.

Both groups of respondents felt that the *biggest challenges* in terms of ensuring students are prepared for careers including technical careers were (in order of priority):

- Overcoming vocational/technical image
- Awareness of programs/careers
- Schools and businesses working closer together.

The private sector group also felt that funding for training programs was a challenge equal to schools and businesses working closer together.

Many ideas were offered when asked how the *career development system could be enhanced* to help those who need skills upgrades. The top four ideas for each group were:

| <u>PRIVATE SECTOR</u> | <u>ALL RESPONDENTS</u> |
|--|---|
| Tuition Support (12%) | Increase funding of state, community college programs and work keys (10%) |
| Partnership with community colleges, chambers, schools and businesses to develop programs businesses need (9%) | Partnership with community colleges, chambers schools and businesses to develop programs businesses need (9%) |
| Motivate the underemployed (9%) | Flexible funding (8%) |
| Co-Op/mentoring programs (9%) | Marketing of programs/combine local and state marketing campaigns (7%) |

Numerous proposals were offered on how *linkages between the systems could be enhanced*. The top two for both groups were: Collaboration/communication of resources/systems/end users and better coordination between MEDC and MDCC.

The top three ideas for how *we can better ensure that Michigan remains competitive* with other states in retaining and building a skilled work force were the same for both groups.

- Funding for programs/education system/equipment
- Reach the student population at earlier grade levels about career opportunities and good work ethics and staying in Michigan
- Increase the number of target markets (smaller communities and other types of jobs)

Summary

Respondents of the survey believe that workforce training is critical. Shortage of skilled workers is still their number one concern. To begin to address this issue, working with students and parents in overcoming the negative image of vocational/technical careers and workforce training must begin early, in high school and beyond. There must be a greater emphasis in the K-12 curriculum of both basic and employability skills. Awareness of the skills needed for today's jobs needs to be increased, and industry and education need to improve communication about skills that are required to more fully match available jobs with skilled employees.



Lower Peninsula :: Workforce/Career Development Survey

1. What is the current #1 workforce related issue for your region? Has it changed in the last year?

2. On a scale of 1-10 (1 being not familiar and 10 being very familiar), how familiar are businesses in your region with available workforce/career development programs?

How can the awareness and use of these programs be increased?

3. Again on a scale of 1-10 (1 being not well and 10 being very well), how well do educational providers do in providing students an education that prepares them for work in your region?

High Schools?
Adult Education?
Community Colleges?
Four-year Colleges/Universities?

4. What is your region's biggest challenge in terms of ensuring students are prepared for careers including technical careers?

5. How can the career development system be enhanced to help those who need skills upgrades – the underemployed incumbent workers in your region? The unskilled?

6. Michigan has nationally recognized workforce and economic development systems; how can the linkages between the systems be enhanced to maintain our *best in class* reputation?

7. What ideas do you have as to how we can better ensure that Michigan remains competitive with other states in terms of retaining and building a skilled workforce?

Please Identify your affiliation (check one):

Private Sector Company _____ Private Sector Other _____ K-12 Education _____
Michigan Works! _____ Post-Secondary Education _____

Lower Peninsula :: Workforce/Career Development Survey Data

1. What is the current #1 workforce related issue for your region?

Shortage of skilled workers (33)
 Shortage of workers (19)
 Lack of basic skills/work ethic (9)
 Lack of training assistance (6)
 Downsizing (3)
 Educational and workforce development (2)
 Technology upgrades (1)
 Collaboration between business, industry, community and learning institutions (1)
 Training of youth (1)
 Reducing the drop out rate (1)
 Lack of interest/awareness in manufacturing careers (1)
 Retaining employees/employers (1)
 Regional mass transit (1)
 Awareness of alternative career paths (1)
 NA (1)

Has it changed in the last year?

No (31)
 Yes (10)
 NA (40)

2. On a scale of 1–10 (1 being not familiar and 10 being very familiar), how familiar are businesses in your region with available workforce/career development programs?

1 (1)
 2 (3)
 3 (8)
 4 (8)
 5 (20)
 6 (13)
 7 (13)
 8 (10)
 9 (1)
 NA (4)

How can the awareness and use of these programs be increased?

Better Marketing/Communication (28)
 Personal contact (16)
 Coordination between business, government, education, chambers, etc. (12)
 Identify business needs and market to them (6)
 More funding from the State for marketing (3)
 Continue with what you are doing (2)
 European Models (2)
 Internet (2)
 Millage campaign (1)
 Tax credit for using public training programs (1)
 Are we offering the programs needed by employers (1)
 Partner with private employment companies (1)
 Concentrate efforts with WDB (1)
 NA (5)

3. Again on a scale of 1–10 (1 being not well and 10 being very well), how well do educational providers do in providing students an education that prepares them for work in your region?

| High School | Adult Education | Community Colleges | Four-year Colleges/Universities |
|-------------|-----------------|--------------------|---------------------------------|
| 1 (1) | 1 (3) | 4 (2) | 2 (1) |
| 2 (4) | 2 (6) | 5 (4) | 3 (1) |
| 3 (7) | 3 (9) | 6 (8) | 4 (6) |
| 4 (2) | 4 (7) | 7 (16) | 5 (3) |
| 5 (19) | 5 (14) | 8 (23) | 6 (11) |
| 6 (18) | 6 (16) | 9 (14) | 7 (15) |
| 7 (9) | 7 (7) | 10 (10) | 8 (24) |
| 8 (11) | 8 (8) | NA (4) | 9 (7) |
| 9 (3) | 9 (3) | | 10 (6) |
| 10 (3) | 10 (1) | | NA (7) |
| NA (4) | NA (7) | | |

4. What is your region's biggest challenge in terms of ensuring students are prepared for careers including technical careers?

Overcoming the voc/tech image (23)
 Awareness of programs/careers (15)
 Schools and business working closer together (9)
 Lack of knowledge of skills and training required by employers (6)
 Keep training current to match needs of employers (5)
 Funding for training programs (5)
 Access to training (4)
 Real life experiences in the classrooms (3)
 Qualified trainers (2)
 Work attitudes of youth (1)
 Community support (1)
 System flexibility (1)
 Basic education (4)
 Static population growth (1)
 NA (1)

5. How can the career development system be enhanced to help those who need skills upgrades—the underemployed incumbent workers in your region? The unskilled?

Increase funding of state, community college programs and WorkKeys® (8)
 Partnership with community colleges, chambers, schools and business to develop programs businesses need (7)
 Flexible funding (6)
 Marketing of programs/combine local and state marketing campaigns (5)
 Tuition support (4)
 Promote/use M-TECsSM and community colleges (3)
 Greater collaboration (3)
 Tax credits for employers to train/employer incentives (3)
 Motivate the underemployed (3)
 Keep doing what we've been doing (3)
 Co-op/mentoring programs (3)
 On job training (3)
 More accessible training to larger variety of groups (3)
 Creation of minimal basic skills programs (3)
 Start in high school (3)
 Tools to work with employers to create career ladders in their companies (2)
 WorkKeys® (2)
 Educational marketing (1)
 E-learning formats (1)
 Provide pathways for higher-wage, higher-skilled work (1)
 Greater utilization of one-stop centers (1)
 Education requirements to receive unemployment dollars (1)
 Flexible scheduling between employers and development system (1)
 Training over longer period of time (1)
 NA (10)

6. Michigan has nationally recognized workforce and economic development systems; how can the linkages between the systems be enhanced to maintain our best-in-class reputation?

Collaboration/communication of resources/systems/end users (30)
 Better coordination between MEDC and MDCCD (7)
 Marketing/Publicity (5)
 Continue to include industry input in program designs (5)
 On track (3)
 Co-op programs embraced by unions (2)
 Business needs to be involved in education system (2)
 Match for new innovative ways of doing business and implementing state of the art or cutting edge programs (2)
 Use community colleges as exclusive delivery mechanism for career development (1)
 Funding (1)
 Include smaller communities (1)
 Unemployment benefits need to be less than minimum wage so unemployed look for jobs instead of benefits (1)
 End duplicative job listing sites (1)
 For each major economic development initiative there should be a companion workforce development program (1)
 Minimize regulations for EDJT, let funds be used to meet community needs (1)
 Economic development needs to provide community culture training/awareness (1)
 Leverage applied tech to private markets via universities (1)
 Address need to add polypropylene to cement RE: new highway construction (1)
 NA (15)

7. What ideas do you have as to how we can better ensure that Michigan remains competitive with other states in terms of retaining and building a skilled workforce?

Funding for programs/education system/equipment (9)
 Reach student population at earlier grade levels about career opportunities and good work ethics, staying in Michigan (7)
 Increase number of target markets (smaller communities and other types of jobs) (6)
 Improve business climate/decrease in taxes: personal property, SBT, property (5)
 Marketing to target markets and for target programs (5)
 Provide training program that matches employer needs (4)
 Strengthen Michigan Works! System/WDB (4)
 Constant evaluation (4)
 Initiatives to attract out of state (relocation insurance) and 3rd world labor markets (3)
 Improve education system basics (reading, writing, etc.) (2)
 More and new kinds of relationships between government, business and education (2)
 Better coordination of efforts (2)
 Co-op/Internship programs (2)
 Training for at risk people (2)
 Jobs (2)
 Career Pathway system (2)
 Combine workforce development, high school, community college training all in one venue—like Oklahoma (1)
 More partnering of business and schools (1)
 Provide strong skills program to train and retrain the future workforce (1)
 Provide economic incentives to employers (1)
 Benchmark against other states (1)
 Increase WBD influence in career prep planning (1)
 Create a life-long learning environment (1)
 Employer's need to retrain versus proficiency test (1)
 E-learning (1)
 Keep doing what we are doing (1)
 Employee Advocacy (1)
 NA (9)

Please identify your affiliation (check one):

| | | |
|-----------------------------|-------------------------------|----------------------|
| Private sector company (10) | Private sector other (25) | Michigan Works! (10) |
| K-12 education (2) | Post-secondary education (23) | NA (11) |

Lower Peninsula :: Private Sector Only :: Workforce/Career Development Data

1. What is the current #1 workforce related issue for your region?

Shortage of workers (11)
 Shortage of skilled workers (11)
 Lack of basic skills/work ethic (5)
 Lack of training assistance (3)
 Downsizing (1)
 Educational and workforce development (1)
 Lack of interest/awareness in manufacturing careers (1)
 Awareness of alternative career paths (1)
 NA (1)

Has it changed in the last year?

No (15)
 Yes (2)
 NA (18)

2. On a scale of 1–10 (1 being not familiar and 10 being very familiar), how familiar are businesses in your region with available workforce/career development programs?

2 (1)
 3 (4)
 4 (6)
 5 (10)
 6 (4)
 7 (6)
 8 (1)
 NA (3)

How can the awareness and use of these programs be increased?

Better Marketing/Communication (13)
 Coordination between business, government, education, chambers, etc. (6)
 Personal contact (5)
 Identify business needs and market to them (3)
 European Models (2)
 Tax credit for using public training programs (1)
 Internet (1)
 Partner with private employment companies (1)
 Concentrate efforts with WDB (1)
 NA (2)

3. Again on a scale of 1 to 10 (1 being not well and 10 being very well), how well do educational providers do in providing students an education that prepares them for work in your region?

| High Schools | Adult Education | Community Colleges | Four-year Colleges/Universities |
|--------------|-----------------|--------------------|---------------------------------|
| 1 (1) | 2 (2) | 4 (2) | 2 (1) |
| 3 (4) | 3 (3) | 5 (4) | 4 (2) |
| 4 (1) | 4 (2) | 6 (3) | 5 (1) |
| 5 (7) | 5 (5) | 7 (6) | 6 (6) |
| 6 (4) | 6 (10) | 8 (9) | 7 (4) |
| 7 (3) | 7 (3) | 9 (4) | 8 (9) |
| 8 (8) | 8 (3) | 10 (4) | 9 (3) |
| 9 (2) | 9 (2) | NA (3) | 10 (4) |
| 10 (2) | NA (5) | | NA (5) |
| NA (3) | | | |

4. What is your region's biggest challenge in terms of ensuring students are prepared for careers including technical careers?

Overcoming the voc/tech image (11)
 Schools and business working closer together (6)
 Awareness of programs/careers (4)
 Funding for training programs (4)
 Access to training (3)
 Basic education (2)
 Lack of knowledge of skills and training required by employers (2)
 Real life experiences in the classrooms (1)
 System flexibility (1)
 NA (1)

5. How can the career development system be enhanced to help those who need skills upgrades – the underemployed incumbent workers in your region? The unskilled?

Tuition support (4)
 Partnership with community colleges, chambers, schools and businesses to develop programs businesses need (3)
 Motivate the underemployed (3)
 Co-op/mentoring programs (3)
 Tax credits for employers to train/employer incentives (2)
 More accessible training to larger variety of groups (2)
 Marketing of programs/combine local and state marketing campaigns (2)
 Promote/use M-TECsSM and community colleges (1)
 Keep doing what we've been doing (1)
 Tools to work with employers to create career ladders in their companies (1)
 On job training (1)
 Educational marketing (1)
 Provide pathways for higher-wage, higher-skilled work (1)
 Creation of minimal basic skills programs (1)
 Greater utilization of one-stop centers (1)
 Start in high school (1)
 Flexible scheduling between employers and development system (1)
 NA (6)

6. Michigan has nationally recognized workforce and economic development systems; how can the linkages between the systems be enhanced to maintain our *best-in-class* reputation?

Collaboration/communication of resources/systems/end users (9)
 Better coordination between MEDC and MDCCD (3)
 Continue to include industry input in program designs (3)
 Marketing/Publicity (2)
 Co-op programs embraced by unions (2)
 Match for new innovative ways of doing business and implementing state of the art or cutting edge programs (2)
 On track (1)
 Include smaller communities (1)
 Unemployment benefits need to be less than minimum wage so unemployed look for jobs instead of benefits (1)
 Business needs to be involved in education system (1)
 Economic development needs to provide community culture training/awareness (1)
 Address need to add polypropylene to cement RE: new highway construction (1)
 NA (8)

7. What ideas do you have as to how we can better ensure that Michigan remains competitive with other states in terms of retaining and building a skilled workforce?

Reach student population at earlier grade levels about career opportunities and good work ethics, staying in Michigan (5)
 Increase number of target markets (smaller communities and other types of jobs) (4)
 Funding for programs/education system/equipment (4)
 Improve business climate/decrease in taxes: personal property, SBT, property (3)
 Marketing to target markets and for target programs (3)
 Initiatives to attract out-of-state (relocation insurance) and 3RD world labor markets (2)
 Improve education system basics (reading, writing, etc.) (2)
 Provide training program that matches employer needs (1)
 Career Pathway system (1)
 More and new kinds of relationships between government, business and education (1)
 Strengthen Michigan Works! System/WDB (1)
 Better coordination of efforts (1)
 Co-op/Internship programs (1)
 Training for at risk people (1)
 Jobs (1)
 Create a life-long learning environment (1)
 Employers need to retrain versus proficiency test (1)
 NA (2)

Please identify your affiliation (check one):

Private sector Company (10)

Private sector other (25)



300 N. WASHINGTON SQ., LANSING, MI 48913 | PHONE: 517.373.9808
E-MAIL: MEDCSERVICES@MICHIGAN.ORG | WWW.MICHIGAN.ORG